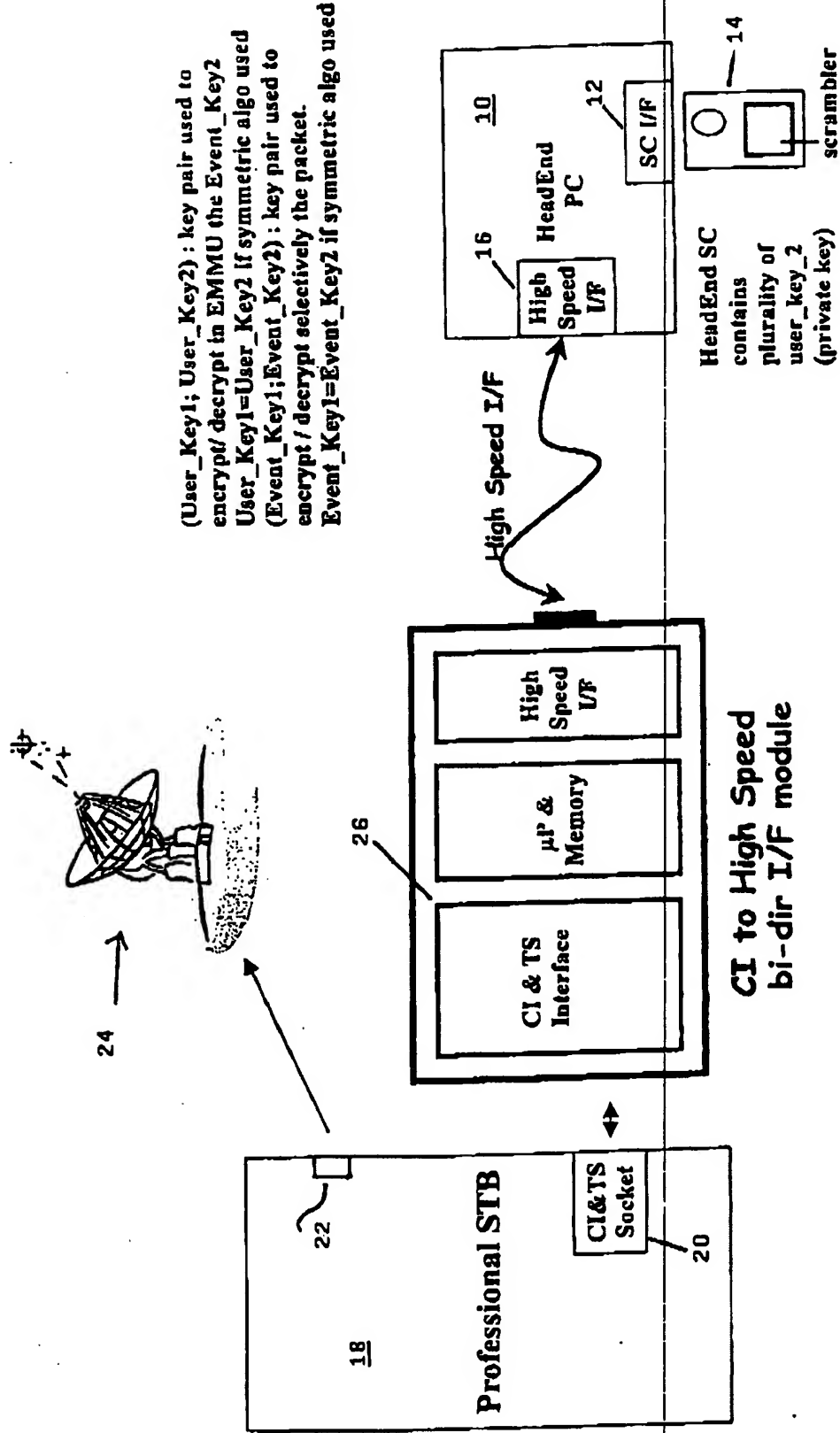


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Fig 1 : HeadEnd Component : Professional STB, CI to High speed bi-directional I/F module and PC with SC I/F and High Speed bi-directional I/F



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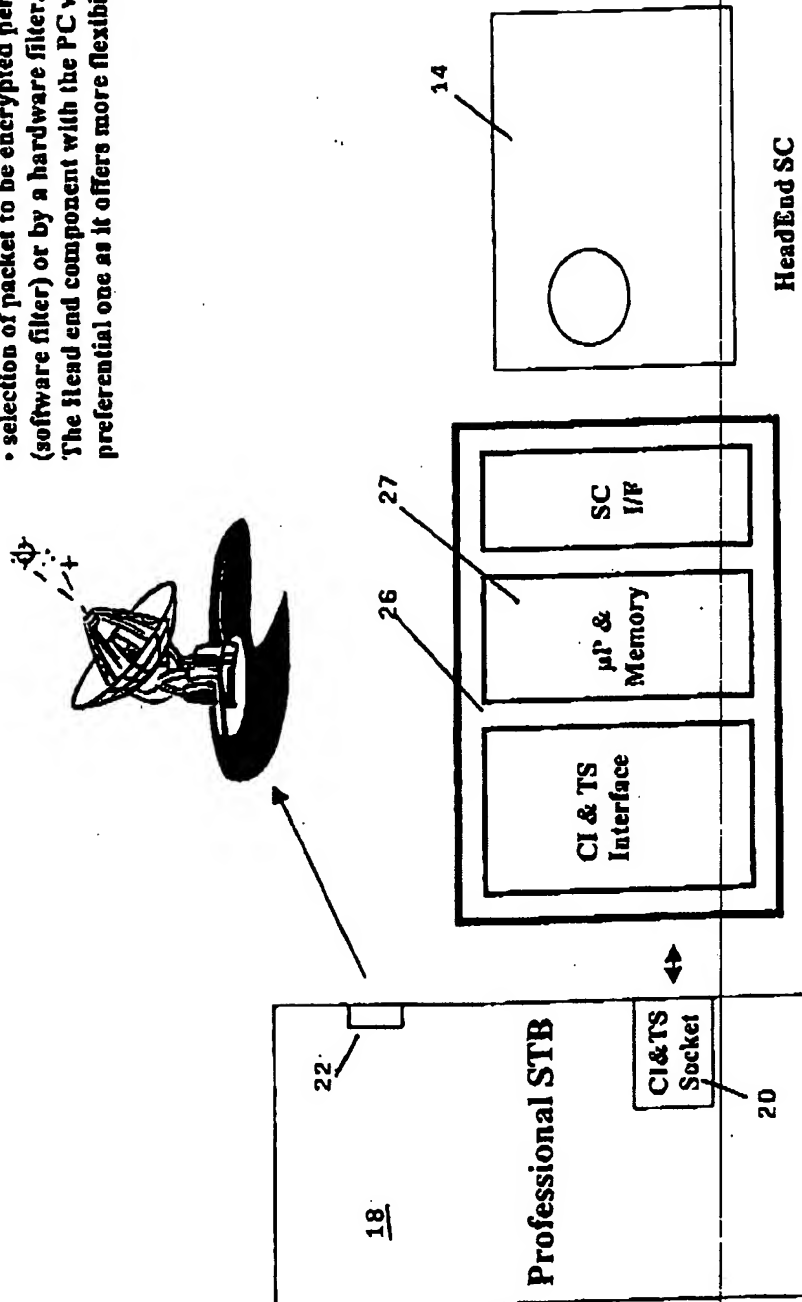
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Fig 2 : HeadEnd Component : Professional STB, CI module including SCR, encryption by SC

The process is the same as the previous one except that

- encryption is performed in the module or in the headend SC
- selection of packet to be encrypted performed by the μP (software filter) or by a hardware filter.

The Head end component with the PC would be the preferential one as it offers more flexibility.



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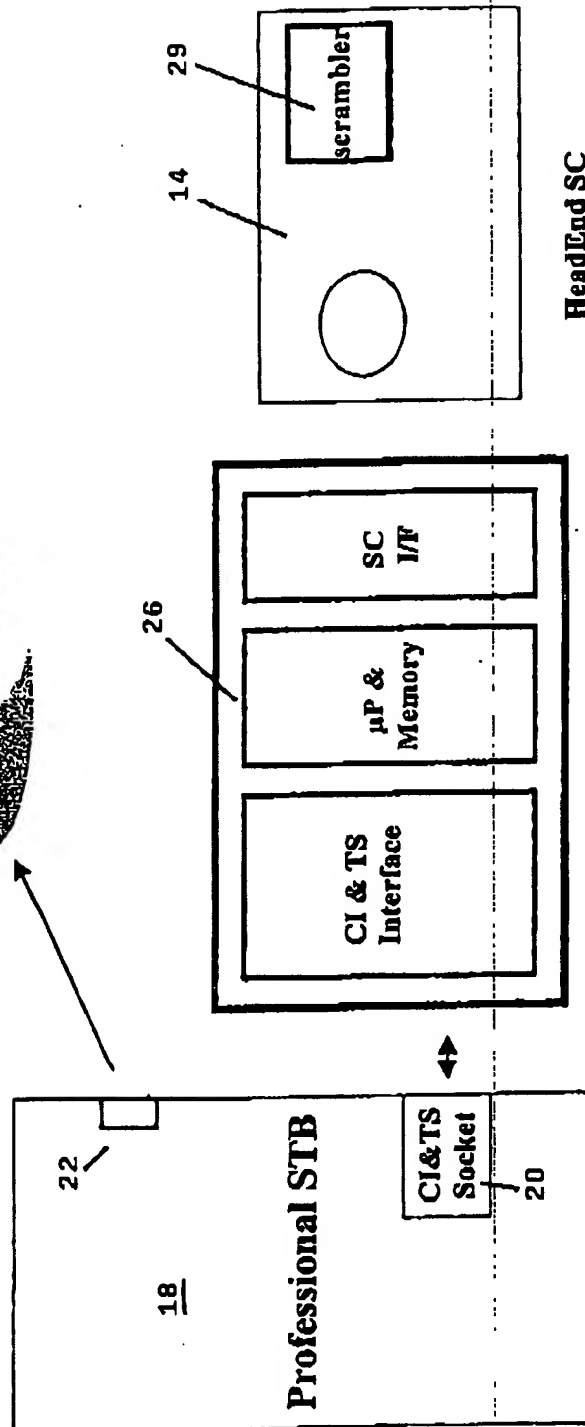
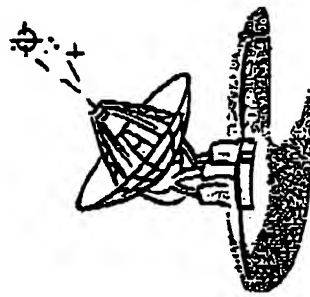
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Fig 3 : HeadEnd Component : Professional STB, CI module including SCR, encryption by Haedend SC

The process is the same as the previous one except that

- encryption is performed in the headend SC
- selection of packet to be encrypted performed by the μP (software filter) or by a hardware filter.

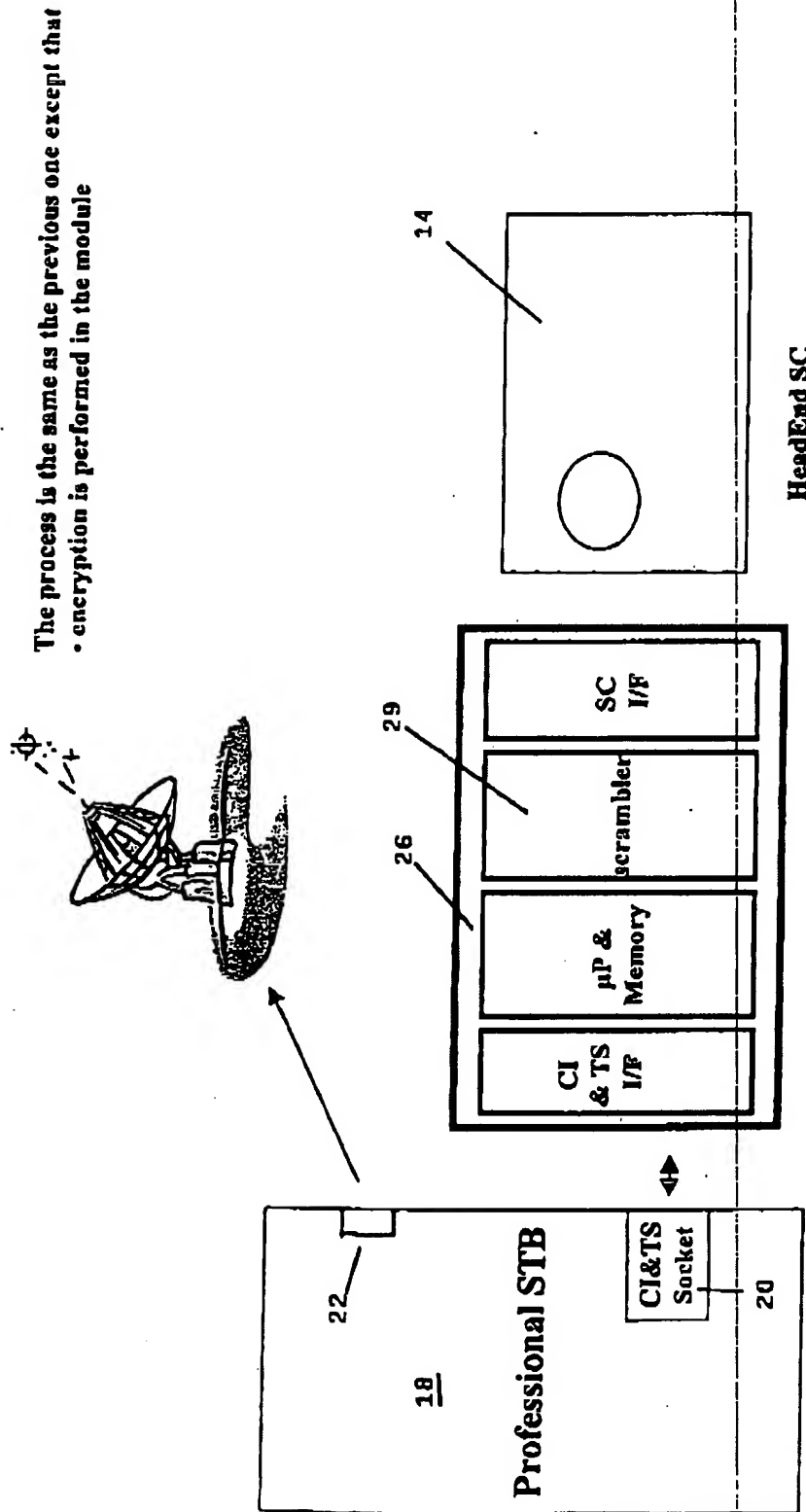
The Head end component with the PC would be the preferential one as it offers more flexibility.



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Fig 4 : HeadEnd Component : Professional STB, CI module including SCR, encryption by module



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Fig 5 : HeadEnd Component : Professional STB including SCR, encryption by Headend SC

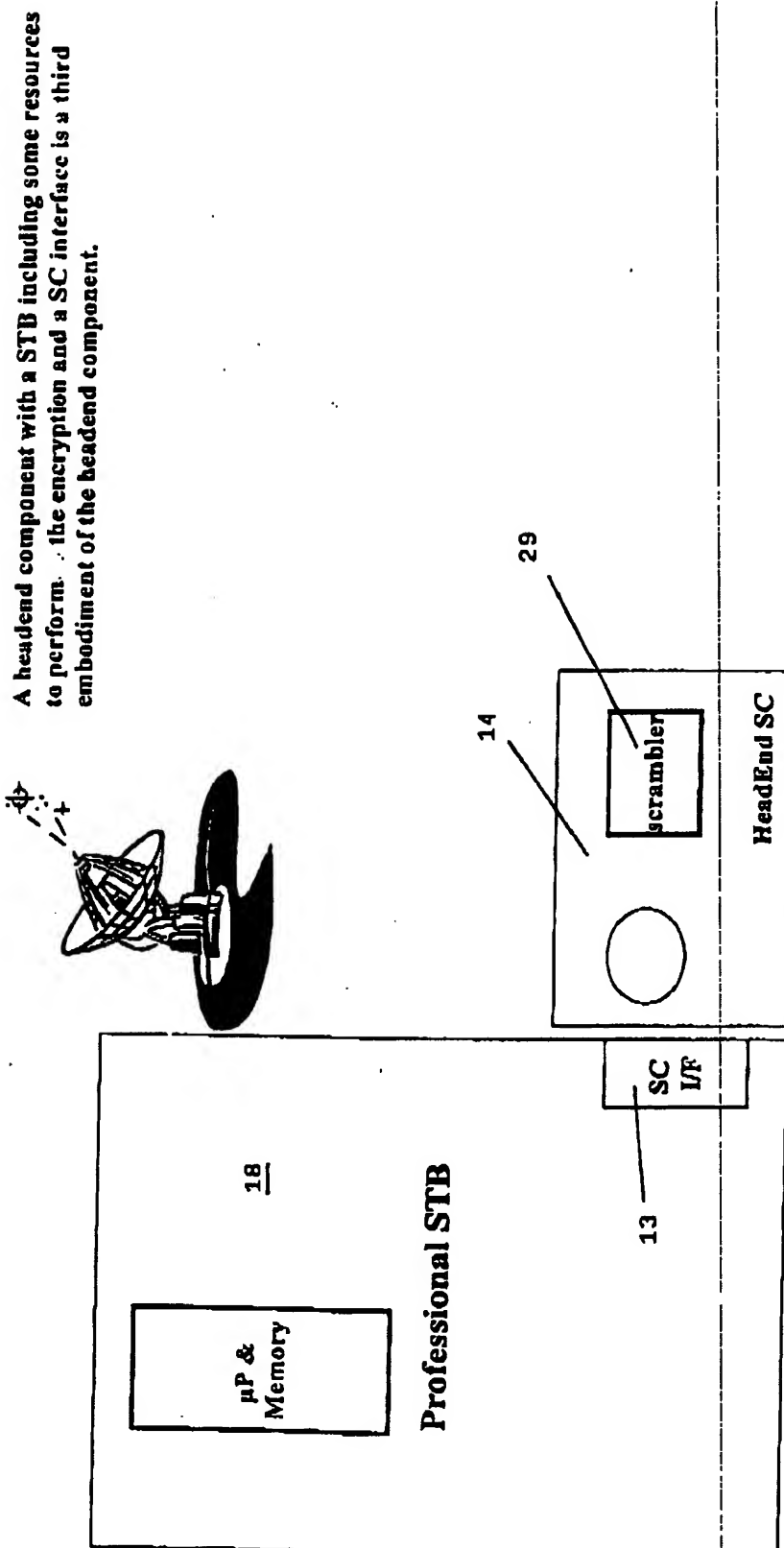


Fig 6 : HeadEnd Component : Professional STB including SCR, encryption by STB

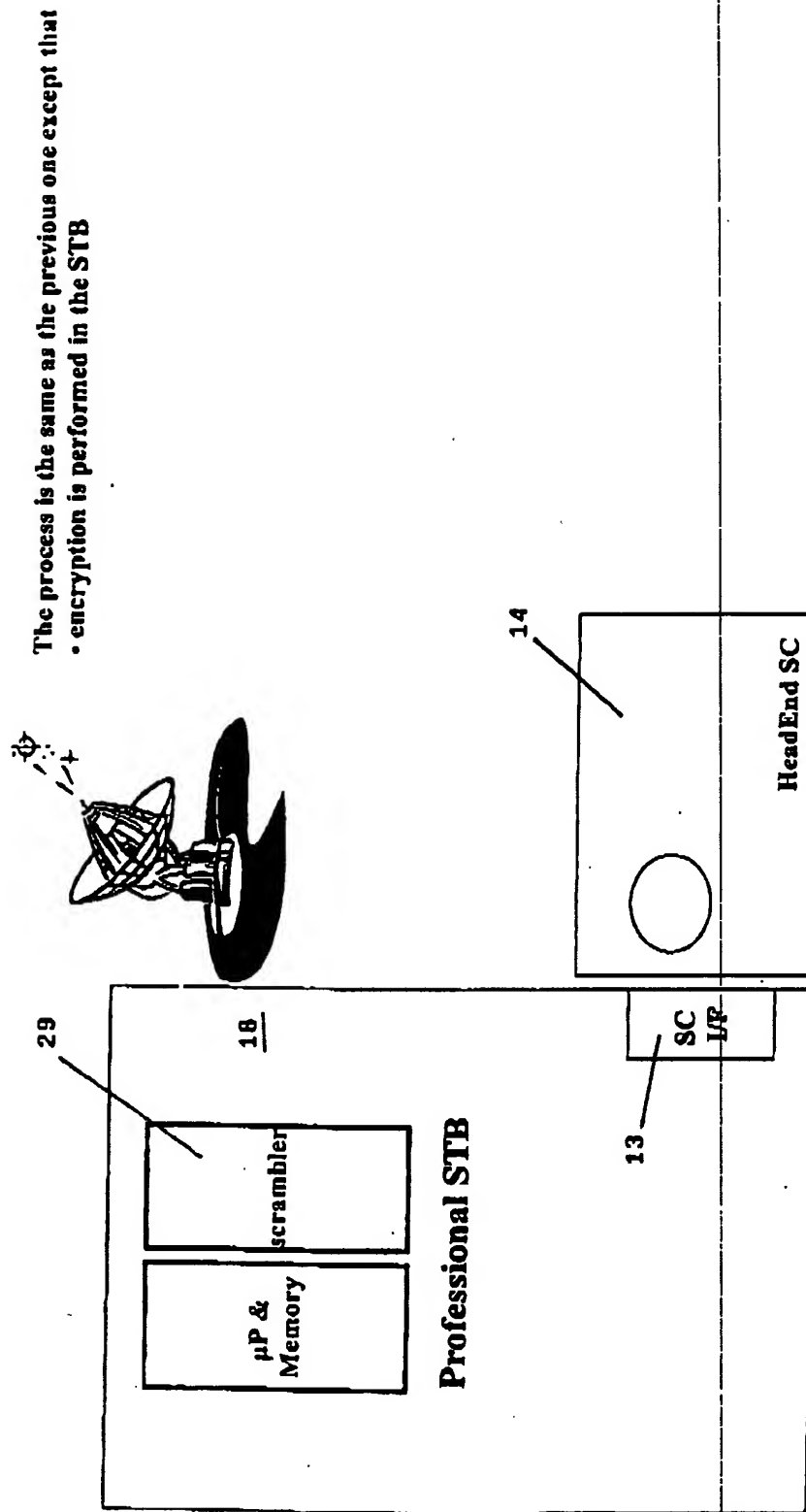
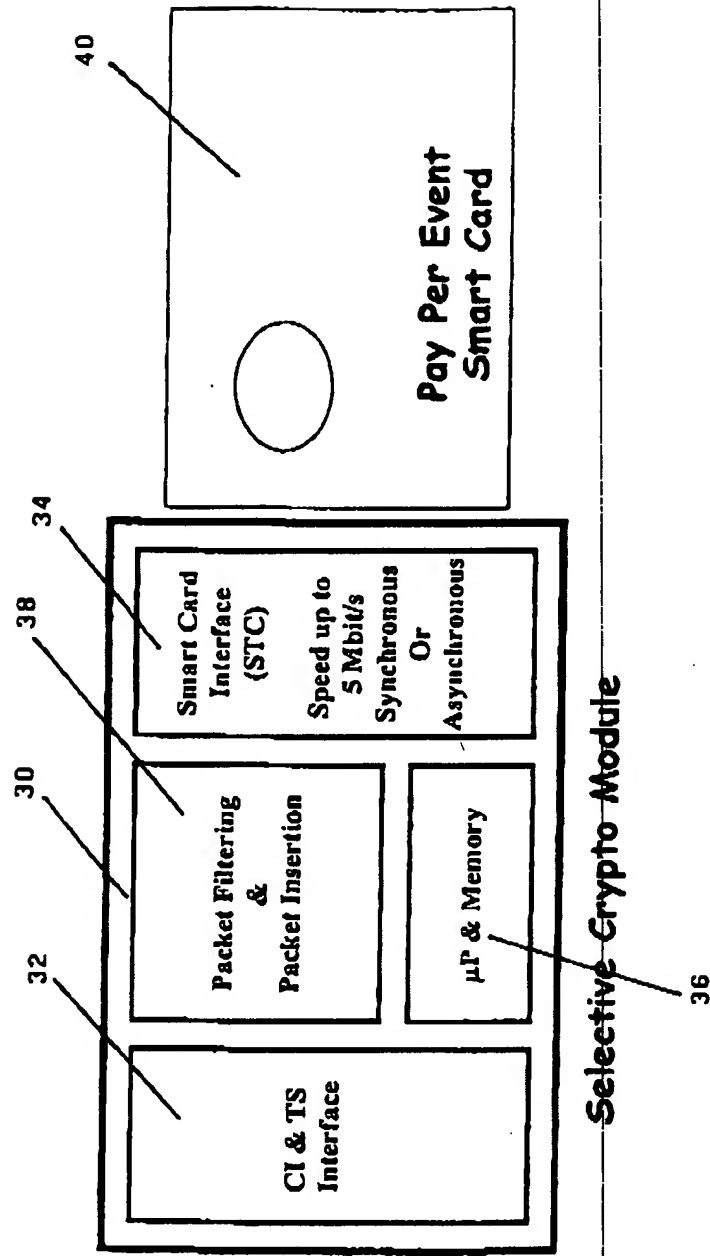


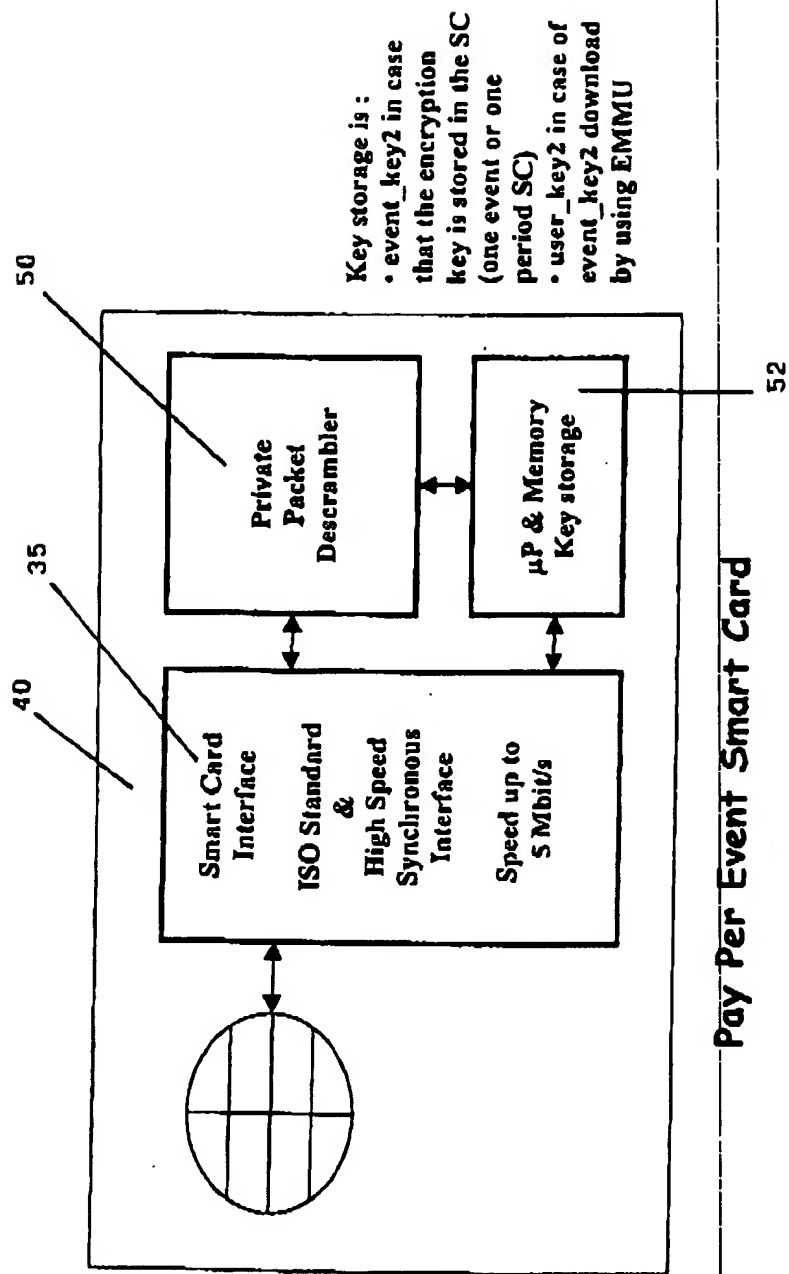
Fig 7 : User decoder : STB + Selective Crypto Module + User SC



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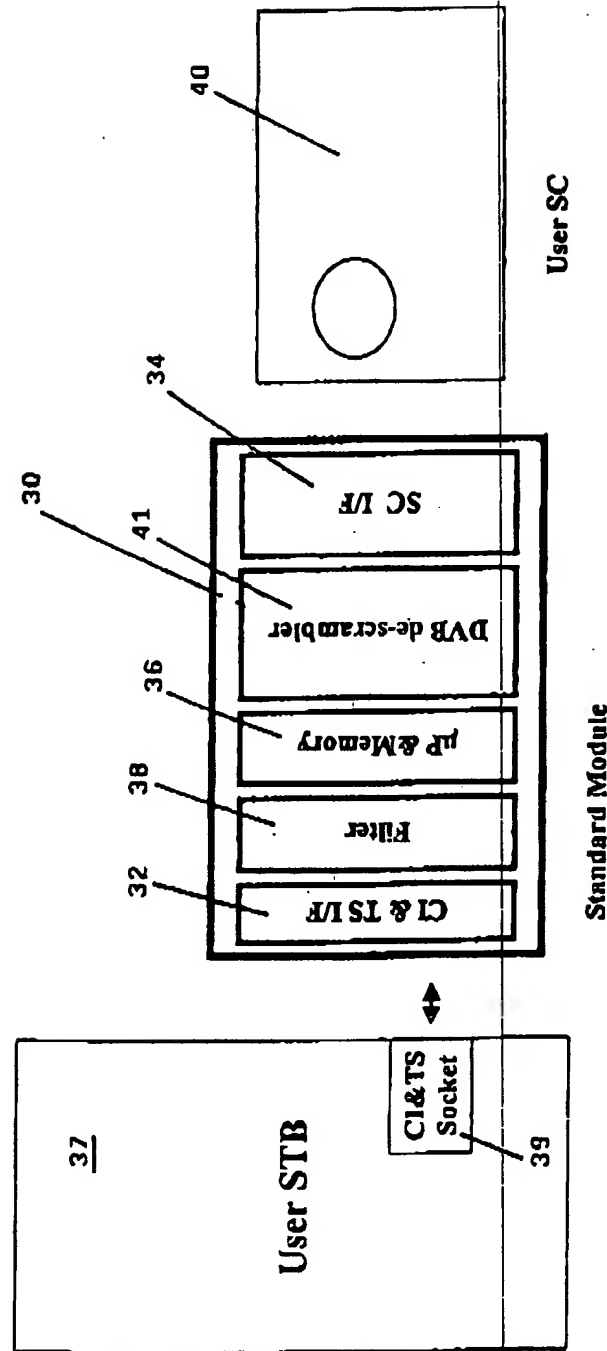
Fig 8 : User SC



Pay Per Event Smart Card

Fig 9 : User decoder : User STB, standard DVB CI updated module and user SC

- The process is the same as the previous one except that
- decryption is performed in a standard module updated to be able to cope with standard DVB scrambling and selective encryption
 - selective decryption is still performed by the user SC



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Fig 10 : User decoder : User STB including SCR

The User STB includes some resources to filter the packet and to insert it properly

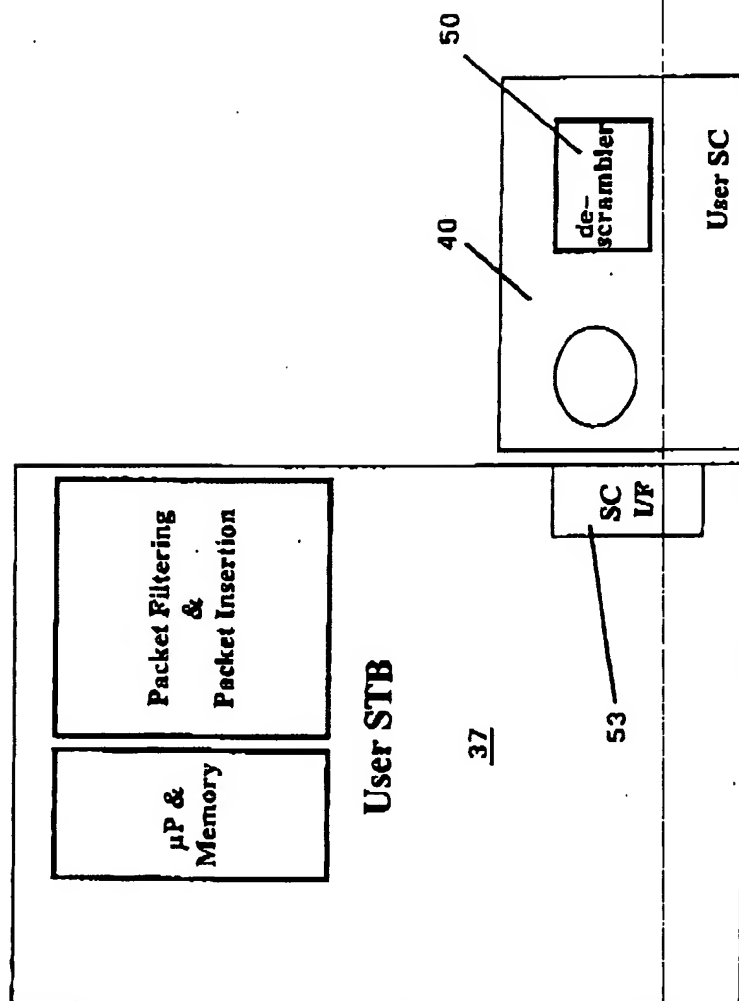


Fig 11 :

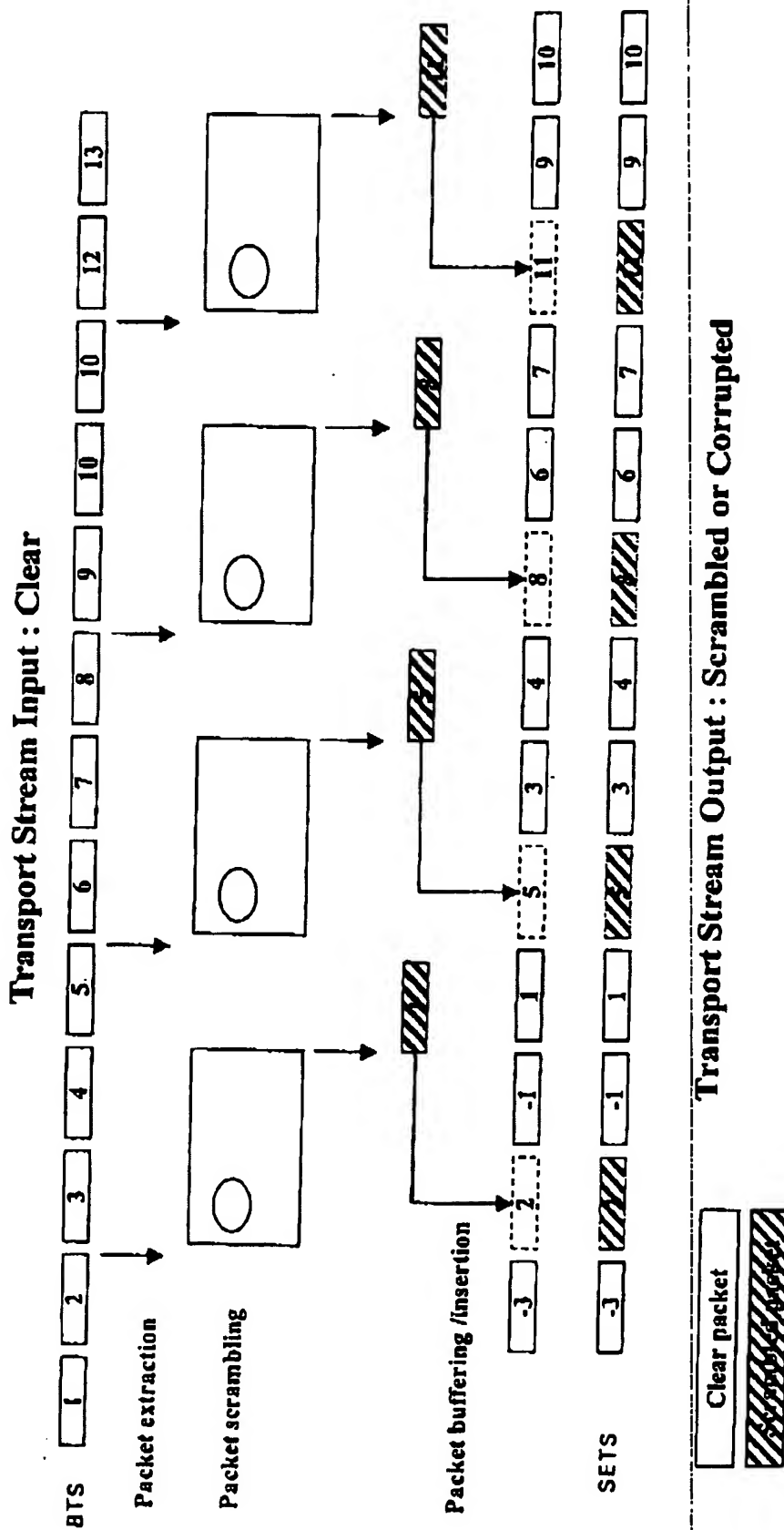


Fig 12 :

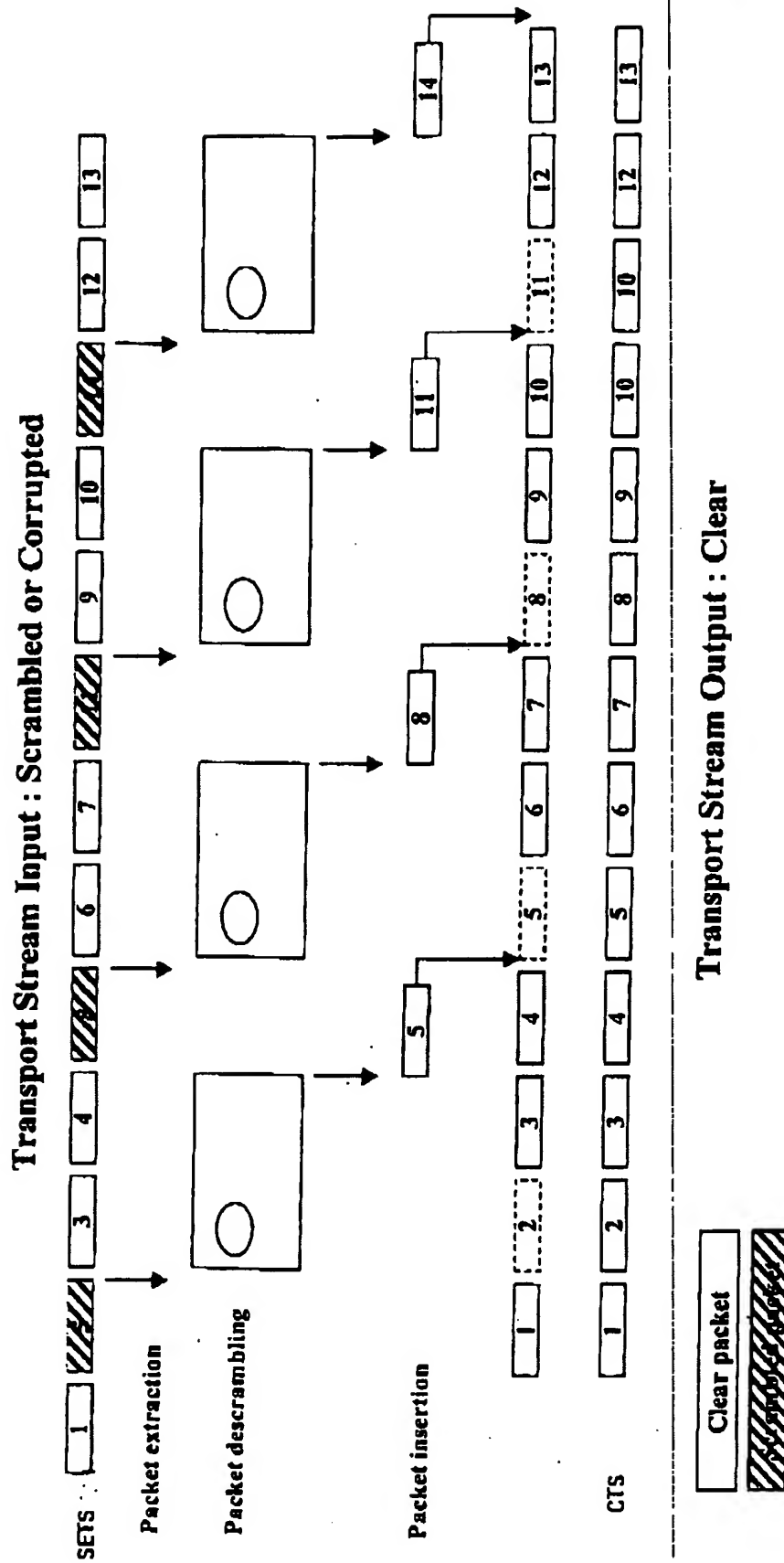
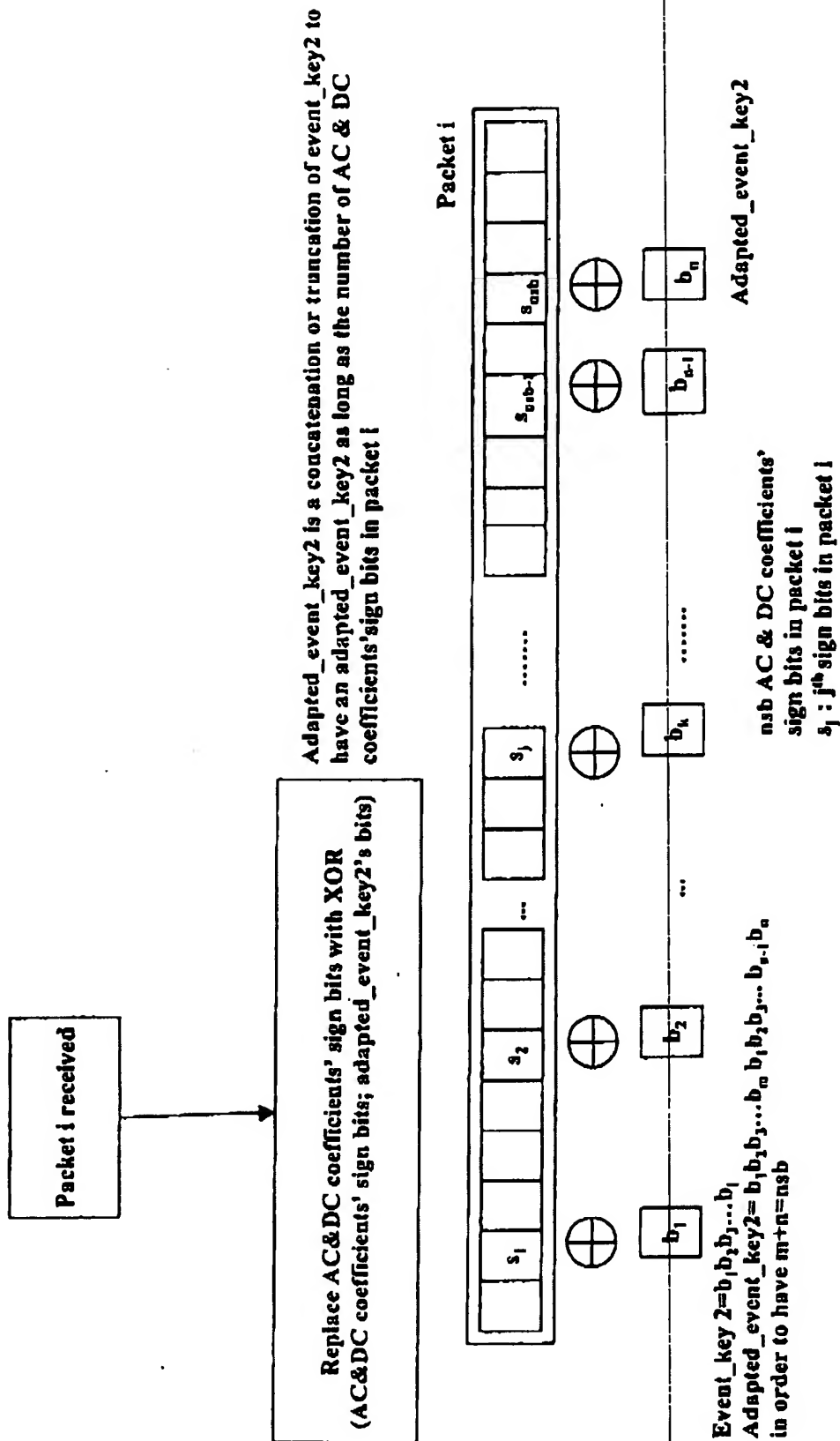
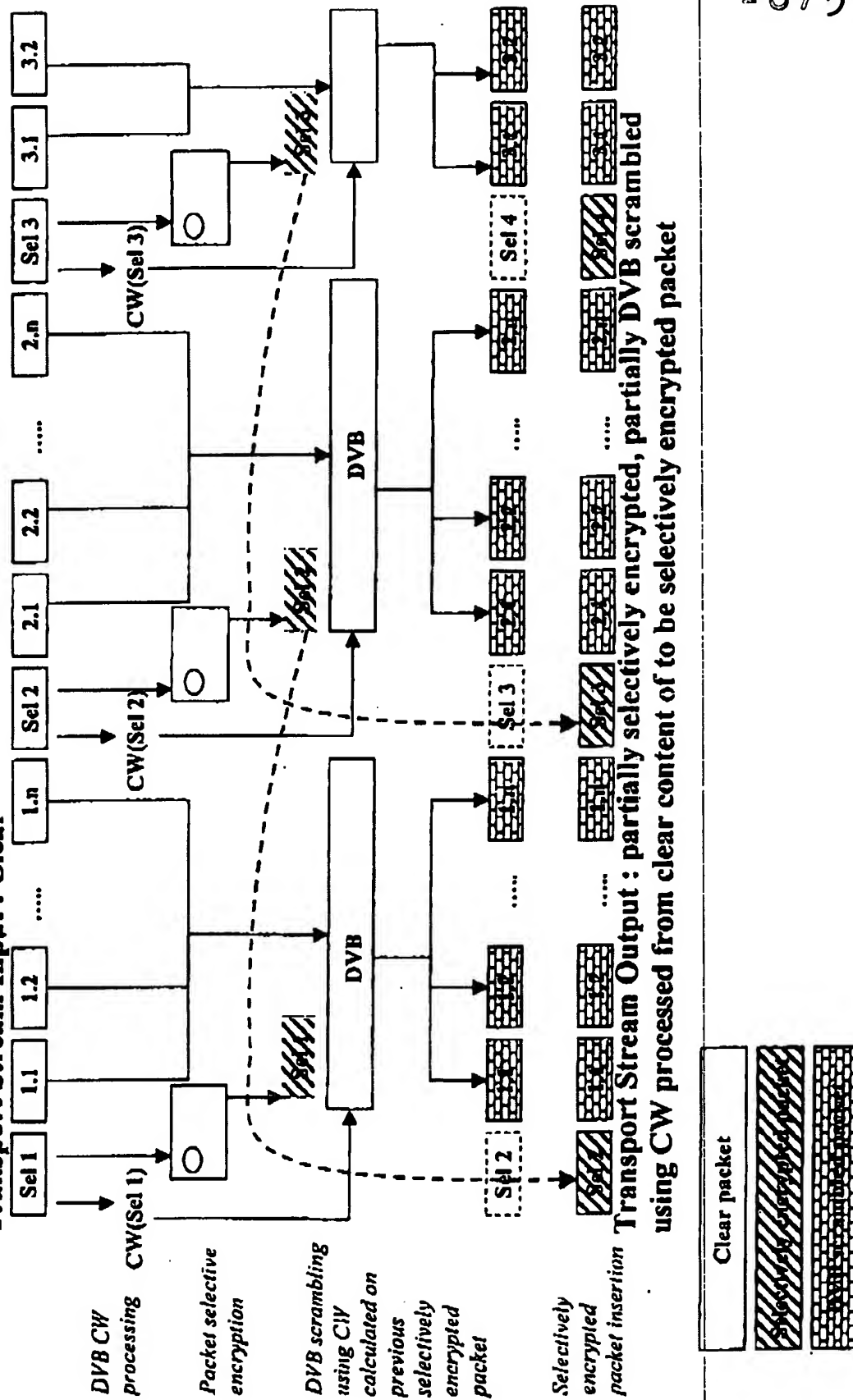


Fig 13 :AC & DC coefficients' sign bits encryption



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Fig 14 : Transport Stream Input : Clear



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